

Emissions Estimation Tools

This brochure provides an overview of the US Environmental Protection Agency's (EPA) air toxics and criteria emission estimating tools. EPA develops air emission inventory tools for point and area sources to support many activities, including: Clean Air Act requirements, State Implementation Plans (SIP), SARA 313 reporting requirements, and other emission estimating and assessment activities. Most of these tools are developed and maintained by the Emission Factor and Inventory Group (EFIG) within EPA's Office of Air Quality Planning and Standards (OAQPS).

This brochure describes each tool and its intended use. Users should select the tool(s) best suited to their projects and obtain the reports or computer databases necessary. For further information on any of these tools, call **Info CHIEF** at (919) 541-1000, or write:

Info CHIEF

**U. S. Environmental Protection Agency
Emission Factor and Inventory Group
(D205-01)**

**Research Triangle Park, NC 27711
(E-mail: info.chief@epa.gov)**

These estimating tools should be used with discretion. Actual emissions from individual sources may vary considerably from values estimated by using emission and speciation factors. Source-specific emission test data are generally preferred, when available. EFIG welcomes any emission data that would help improve the emissions estimating tools presented in this brochure.

United States
Environmental Protection
Agency

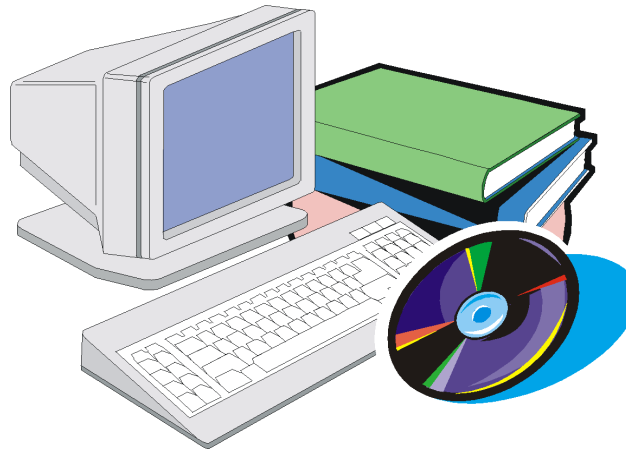
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Office Of Air Quality Planning And Standards
Research Triangle Park, NC 27711



TOOLS

FOR ESTIMATING CRITERIA AND TOXIC AIR POLLUTANTS



Emission Factor and Inventory Group
Emissions, Monitoring, and Analysis Division
Office Of Air Quality Planning and Standards
U. S. Environmental Protection Agency

**To learn more about any
items mentioned here
contact:**

**The *Info CHIEF*
Help Desk
(919) 541-1000**

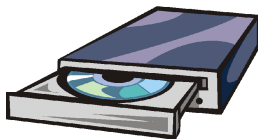


**or visit our web site at
www.epa.gov/ttn/chief/**



COMPUTER TOOLS

The **Air CHIEF** CD-ROM is the most comprehensive tool for retrieving emission estimation data. The disc contains a wealth of information, including the AP-42 Volume I, EIIP documents, **L&E** series, **FIRE**, RTECS Chemical Synonym List, the SCC list, and the SIC list. A user manual and installable copies of **FIRE**, **PM Calculator**, **Water9** and **TANKS** are also included. Contact **Info CHIEF** for more information about the **Air CHIEF** CD-ROM.



The **Factor Information And Retrieval Data System (FIRE)** is a PC program containing EPA's recommended criteria and hazardous air pollutant emission estimation factors. Users can browse through records in the database or select specific emission factors. **FIRE** is available from the **CHIEF Web site** and is on the **Air CHIEF** CD-ROM.



PM Calculator will estimate filterable PM_{2.5} emissions. This software is applicable to point sources only and requires the user to input uncontrolled emissions (either total filterable particulate or filterable PM₁₀) for each source, the source category classification (SCC) and the control device, if any. The program will then calculate controlled emissions for filterable PM_{2.5} and filterable PM₁₀ for each point source. **PM Calculator** is available from the **CHIEF Web site** and is on the **Air CHIEF** CD-ROM.

SPECIATE is EPA's repository of Total Organic Compound (TOC) and Particulate Matter (PM) speciated profiles for a variety of sources for use in source apportionment studies. This release of **SPECIATE** no longer contains profiles assigned to SCC's. Instead, searching for profiles by keyword has been improved and of course the user can still browse through the profiles. **SPECIATE** is available from the **CHIEF Web site** and is on the **Air CHIEF** CD-ROM.

TANKS is a PC software program for estimating volatile organic compound (VOC) emissions from both fixed and floating roof storage tanks. The **TANKS** program is available from the **CHIEF Web site** and the **Air CHIEF** CD-ROM.

WATER9 consists of analytical expressions for estimating air emissions of individual waste constituents in wastewater collection, storage, treatment, and disposal facilities; a database listing many of the organic compounds; and procedures for obtaining reports of constituent fates, including air emissions and treatment effectiveness. **WATER9** is a significant upgrade of features previously obtained in the computer programs **WATER8**, **Chem9**, and **Chemdat8**. **WATER9** is available from the **CHIEF Web site** and is on the **Air CHIEF** CD-ROM.

ON-LINE RESOURCES

The **Compilation of Air Pollutant Emission Factors**, AP-42 is a source of air pollutant emission factors for both criteria and toxic emissions. AP-42



Volume I addresses hundreds of stationary, point, and area sources and Volume II deals with mobile sources. EPA emission rates for many polluting activities are obtained from source tests, material balance studies, and engineering estimates and then collected, approved, and compiled into the AP-42 document. AP-42 is available on the **CHIEF Web site** and **Air CHIEF** CD.

The Emission Inventory Improvement Program (EIIP) is a joint program of the EPA, SAEWG, and STAPPA/ALAPCO. The ultimate goal of the EIIP is to provide cost-effective, reliable inventories by improving the quality of emissions data collected and provide for uniform reporting of this information. Their findings are available in a seven volume set of guidance reports, which are available on the EIIP Web site and the **AIR CHIEF** CD. For more information, call **Info CHIEF**.

EPA's Emission Factor and Inventory prepares a national database, called the **National Emissions Inventory**, of air emissions information with input from numerous State and local air agencies, from tribes, and from industry. Documentation and teaching tools to support the inventory work are available in electronic format. Documentation includes the *Handbook for Air Toxics Emission Inventory Development* and the *Handbook for Criteria Pollutant Inventory Development*. Contact the **Info CHIEF Help Desk** for assistance. Annual emissions inventory data is available on the EPA's **Air Data Web site** at www.epa.gov/air/data/

INTERNET & E-MAIL ACCESS

The **CHIEF Listserv** allows you to receive announcements relevant to the functions of EFIG and EIIP via e-mail. In addition, you will receive an electronic text version of EFIG's publication, the **CHIEF Newsletter**. To subscribe, open your internet browser. Go to <https://lists.epa.gov/cgi-bin/lyris.pl>. From the Main Menu, click on CHIEF. From the next window, click on CHIEF. At the bottom of the 'Enter Mailing list CHIEF' window, click on 'Join chief.'

Get connected with emission factor and inventory information on the Internet World Wide Web! The **CHIEF Web site** serves as a gateway to many related sites, including the Emission Inventory Improvement Program (EIIP) Web site, the PM_{2.5} Inventory Resource Center and the Emissions Modeling Clearinghouse. Here is a list of our most popular Web sites:

CHIEF Web site
www.epa.gov/ttn/chief/

EIIP Web site
www.epa.gov/ttn/chief/eiip/

National Air Pollutant Emission Trends
www.epa.gov/ttn/chief/trends/

Emissions Modeling Clearinghouse
www.epa.gov/ttn/chief/emch/

PM_{2.5} Inventory Resource Center
www.epa.gov/ttn/chief/eiip/pm25inventory/

AirData
www.epa.gov/air/data/

